

### **REMARKS**

The non-final Office Action dated February 23, 2007, has been received and reviewed. Claims 17-23 and 29-31 are pending. The Specification and Abstract are objected to. Claim 18 and 19 are rejected under the second paragraph of 35 U.S.C. §112. Claim 17 is rejected under 35 U.S.C. §102(b) as being anticipated by Pfeifer et al. Claims 18-23 and 29-31 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pfeifer et al. in view of Balling. Applicants respectfully request entry of the amendment above and further consideration of the application in view of the amendment above and the remarks below.

#### **Support for Claim Amendments**

The amendments presented above have been made to recite particular features of the inventions so as to expedite the prosecution of the present application to allowance in accordance with the USPTO Patent Business Goals (65 Fed. Reg. 54603, September 8, 2000). These amendments do not represent an acquiescence or agreement with any of the outstanding rejections.

Claims 17, 18, 20-23, and 29-31 are amended herein for clarity and/or to more clearly point out what Applicants regard as the invention. Claim 19 has been cancelled. Support for these claim amendments can be found in the specification of the application as originally filed. The points raised by the Examiner are addressed hereinbelow in the order in which they are raised in the Action.

#### **Specification**

A new Abstract written in single paragraph form has been provided.

#### **Claim Objections**

Independent Claims 17, 18, 20, and 22 have been extensively amended at the suggestion of the Examiner to recite the first catalyst prior to the second catalyst. The "kinds of" language has also been changed.

**Claim Rejections under 35 U.S.C. §112 (second paragraph)**

Claim 18 and 19 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding Claim 18, it was unclear to the Examiner as to what Applicants intend by the phrase "is applied" in line 8 and line 10 of the claim. Claim 18 has been amended to delete such language. Claim 19 has been cancelled.

**Claim Rejections under 35 U.S.C. §102(b)**

Claim 17 is rejected under 35 U.S.C. §102(b) as being anticipated by Pfeifer et al. Applicants respectfully traverse this rejection.

Case law holds and the Manual for Patent Examination Procedure ("M.P.E.P.") states that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Furthermore, the identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Additionally, anticipation under 35 U.S.C. § 102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention. *Apple Computer Inc. v. Articulate Systems Inc.* 57 USPQ2d 1057, 1061 (Fed. Cir. 2000). Furthermore, a finding of anticipation further requires that there must be no difference between the claimed invention and the disclosure of the cited reference as viewed by one of ordinary skill in the art. *See Scripps Clinic & Research Foundation v. Genentech Inc.*, 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991). Additionally, the cited prior art reference must be enabling, thereby placing the allegedly disclosed matter in the possession of the public. *In re Brown*, 329 F.2d 1006, 1011, 141 U.S.P.Q. 245, 249 (C.C.P.A. 1964). Thus, the prior art reference must adequately describe the claimed invention so that a person of ordinary skill in the art could make and use the invention.

Applicants maintain that each and every element of Claim 17 is not taught by Pfeifer et al. Pfeifer relates to exhaust gas treatment for an internal combustion engine. Thus, an atmosphere where oxygen does not exist at rich fuel conditions and an atmosphere where oxygen exists at lean fuel conditions are repeated. Its configuration is, from upstream of the gas flow, to the first unit, and to the second unit. The first unit generates ammonia with the catalyst of the first unit at rich exhaust gas conditions, absorbs and stores the ammonia, and discharges the ammonia stored at lean exhaust gas conditions. The third unit oxidizes nitrogen monoxides present in the exhaust gas to nitrogen dioxides so that from 25 vol. % to 75 vol. % of the nitrogen dioxides are entered into the second unit by oxidizing from 60 vol. % to 90 vol. % of the nitrogen monoxides (from 5 vol. % to 40 vol. % of the nitrogen dioxides) in the exhaust gas in order to enhance the efficiency of the denitrification catalyst (SCR-catalyst). The second unit reduces nitrogen oxides present in the exhaust gas by using ammonia as a reduction agent at lean exhaust gas conditions (SCR-catalyst).

This is in sharp contrast to the present invention which provides a denitrification catalyst having high nitrogen dioxide removal performance arranged upstream of the gas flow and a denitrification catalyst which has high nitrogen monoxide removal arranged downstream the gas flow. Such is not taught by Pfeifer. Thus Applicants respectfully request that the §102(b) rejection be withdrawn.

**Claim Rejections under 35 U.S.C. §103(a)**

Claims 18-23 and 29-31 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pfeifer et al. taken together with Balling et al. Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness, Applicants point out that the prior art reference or references when combined must teach or suggest *all* the recitations of the claim, and there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See M.P.E.P. § 2143. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art

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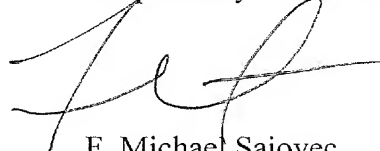
also suggests the desirability of the combination. M.P.E.P. § 2143.01, citing *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Lastly, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 468, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Balling does not cure the deficiencies of Pfeifer with respect to the placement of the catalysts or the specific combination of catalysts used. Thus Applicants respectfully request that the §103(a) rejection be withdrawn.

### CONCLUSION

Accordingly, Applicants submit that the present application is in condition for allowance and the same is earnestly solicited. Should the Examiner have any small matters outstanding of resolution, he is encouraged to telephone the undersigned at 919-854-1400 for expeditious handling.

Respectfully submitted,

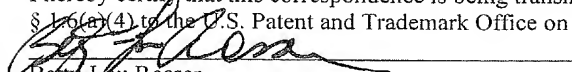


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### CERTIFICATION OF TRANSMISSION

I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) to the U.S. Patent and Trademark Office on June 25, 2007.

  
Betty-Lou Rosser  
Date of Signature: June 25, 2007